

## Particularly Vulnerable Tribal Groups in India : An Overview

Ramesh Sahani<sup>1\*</sup> and Shyamal K. Nandy<sup>2</sup>

<sup>1</sup>*Department of Anthropology, Panjab University, Chandigarh*

<sup>2</sup>*Research Associate, Anthropological Survey of India, Eastern Regional Centre, Kolkata*

**Abstract:** *There are seventy five groups who have been given the status of particularly vulnerable tribal groups and have little access to resource besides low rate of literacy, small population, and some of the groups are at the verge of extinction. They are distributed in various ecological zones beyond the state boundaries with immense variation in subsistence pattern and worldviews. Lots of problem are faced by them and in most of the areas they are unable to cope the situations. In this paper attempt is made to explore the major problems and the factors responsible for their present conditions along with suggestions to improve their status.*

**Keywords:** Particularly vulnerable tribal groups; development; health; nutrition; literacy; geographical distribution.

### INTRODUCTION

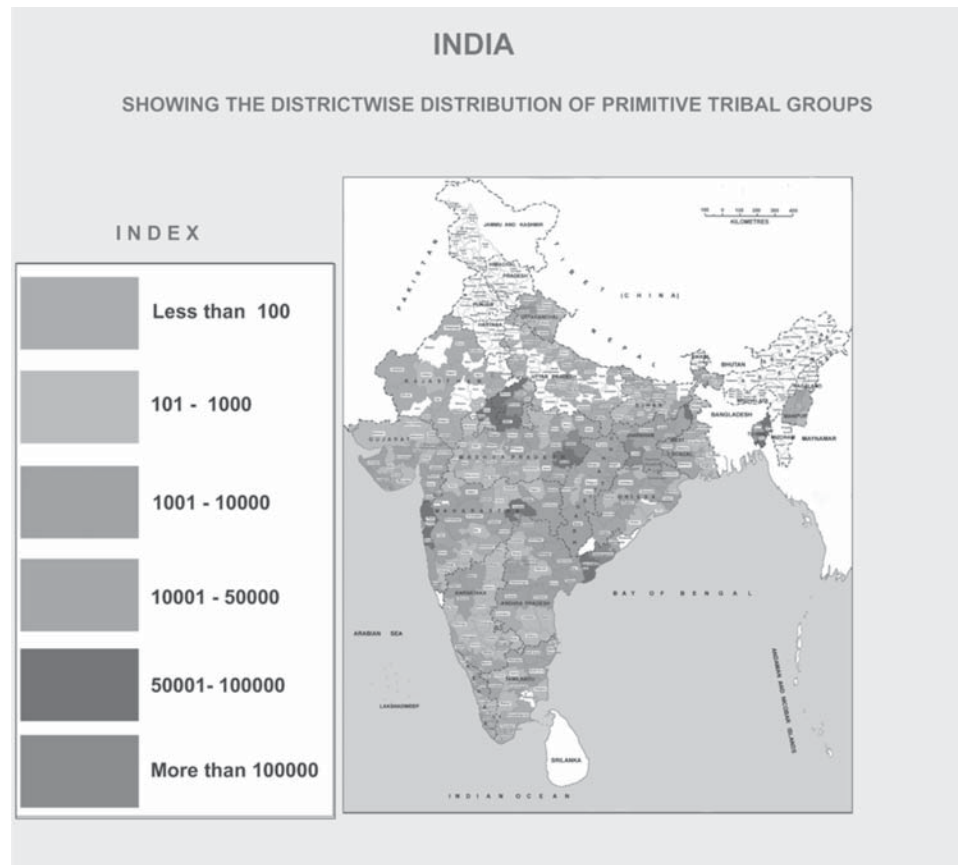
The particularly vulnerable tribal groups (PVTGs) in general are socially as well as economically very backward in the sense that they have little access to the resources for their development, low rate of literacy, relatively small population size, dwindling in numbers and some of the groups are at the verge of extinction. State-wise list of PVTGs shows that there are seventy-five communities, which are distributed in four states: Bihar, Odisha, Chhattisgarh and West Bengal, but on the other hand, a tribe enjoys the status of PVTG in one state but not into another state. If only the names of the tribes are considered, the number of the communities in the list may be reduced to some extent. They are distributed in various ecological zones beyond the state boundaries with immense variation in subsistence pattern, technological development, ways of living and contact with outside world as well as with different worldviews in respect with neighbourhood- so called mainstream population. The population size and number of particularly vulnerable tribal groups are varying in different states, for example, there are maximum 13 groups are in Odisha, which is followed by 12 groups in Andhra Pradesh, 9 groups in Jharkhand and Bihar and the lowest one each in the states of Manipur, Rajasthan and Tripura.

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\* Address for correspondence: Dr. Ramesh Sahani, Assistant Professor, Department of Anthropology, Panjab University, Chandigarh.

Map showing the district-wise distribution of the particularly vulnerable tribal groups.

**Map 1**



As regards the upliftment or bringing change in their whole spheres for the betterment, the fact is that they are at different levels from the point of technological development and worldviews. All the PVTGs of Andaman and Nicobar islands are at the stage of hunting-gathering subsistence whereas the *Buksa* of Uttaranchal are at the modern agricultural stage. Special development strategies have also been implemented for these groups for their upliftment, but from the existing published literature it is found that their development is far away from the satisfactory level, though some good impact are also noticed. The reasons may be lack of proper execution, evaluation and monitoring of the existing developmental programmes. In this context, Sinha (1977) emphasized that “the proper understanding of the situation in relation to these community will require a historical perspectives of

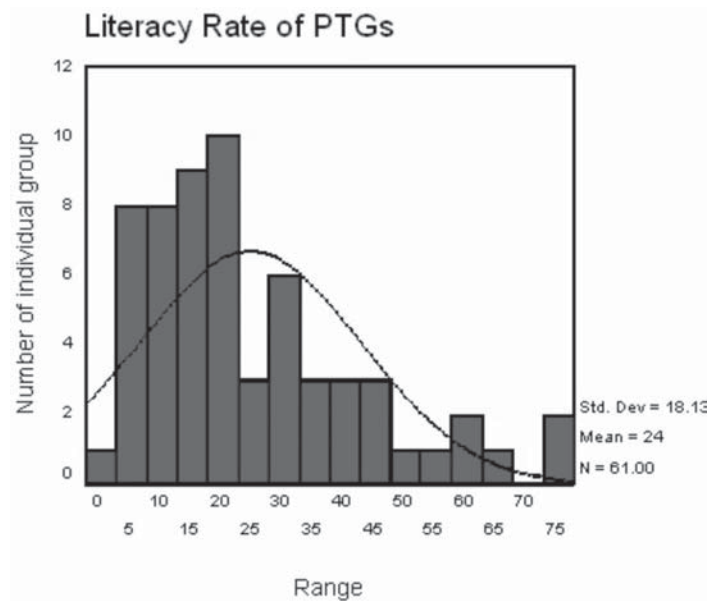
their problems. The basic question is how to bring the process of science and technology within the social control of the participating groups. Education has an important role in bringing about the process of modernization within their social and cultural outlook”. Sometimes the development is equated only with the number of petty service holders in Government and NGO agencies although their number is very few among the PVTGs, but in recent times almost every area as well as the group were under any kind of developmental schemes.

The tribal groups considered here though numerically not so large but they are widely distributed with immense variation in their ecology and economy, physical features, etc. It is really a problem to generalize the whole situation because there are many PVTGs inhabiting in some specific areas. For example, literacy or formal education had negative impact or no beneficial effect among the isolated foraging tribes like the *Sentenalese* next to the *Jarawas*. On the contrary, the parameters like education or literacy level, health and nutritional status, etc., required for those groups who were forced to leave their traditional life styles and have to live with surrounding domination of non-tribal population.

## OBSERVATIONS

Some of the reflections are described above to ascertain general status of the PVTGs. The literacy level shows wider variation with a mean value of 24% only while it ranges from 0% to 75% (Fig. 1). Though groups from Andaman and Nicobar Islands

Figure 1



are showing the lowest value but the *Abhuj Maria* is just next to them and their literacy rate is below 5% whereas it is around 75% among the *Kotas*. The low percentage of literacy definitely indicating the problem of providing proper facilities of education to them, especially, through trained and dedicated teachers. It is worthy to say that, it is necessary to make people interested to take part in formal education and it will be of the nature of empowering the people and get faith in their culture rather than change in their mindset to think of their cultural inferiority.

Most of PVTGs are facing shrinkage of their original habitat even uprooted and getting cultural shock with some kind of alien diseases from which they are not able to cope. Due to changes in their ecological settings as well as outside influences, they are facing the problem of survival in general: either in their health and nutritional aspects or in the process of acculturation. Some of the groups are even facing the problem of extinction, mostly the tribes of Andaman and Nicobar Islands. The example of *Great Andamanese* only just give the insight of the outside impact : “Social scientist have recorded the disastrous effect on *Great Andamanese* tribe of intruders and alien who gifted them with sexually transmitted diseases and smack addiction, in fact; but for serious efforts for its preservation and multiplication, the tribe had almost disappeared” ([www.andaman.org](http://www.andaman.org)). The *Jarawas* are also facing the same problem like the measles outbreak in 1999; mumps epidemic in 2001 and later on few cases of tuberculosis were diagnosed among them after the contact with the outside world. After shedding their hostility, the neighbouring settled population shared their resources and may at one time they will also give a picture, which will be very akin to the *Great Andamanese* (Sahani 2003).

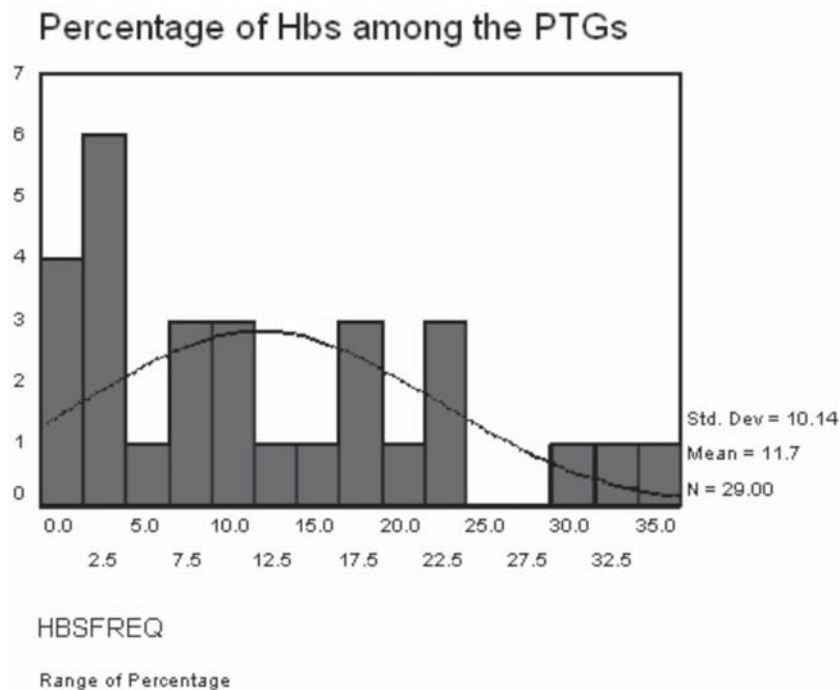
The general health status of the PVTGs are not satisfactory as the ICMR report says that “Analysis of health indices of the tribal population in Odisha are worse than the national average: Infant mortality rate is 84.2; mortality rate under five is 126.6 children, underweight is 55.9%, anaemia in children is 59.8%, children with acute respiratory tract infection is 22.4%; children with dysentery and diarrhoea is 21.1%; women with anaemia is 64.9 per 1000. A high incidence of malnutrition has also been documented in the tribal dominated districts of Odisha” (ICMR 2003). The scenario may be almost same for most of the PVTGs and the tribes of Madhya Pradesh and Chhattisgarh are also exhibiting the same picture (Damayanti & Chakma 2003-2004). The situations of the *Baigas* are also very bad: high mortality and almost one of the highest infant mortality rate, high level of infectious diseases, under nutrition, delayed menarchae (Sahani 2009). The disease profile varies across the area and population. Among the prevalent diseases; malaria, tuberculosis, respiratory tract infection, diarrhoeal disorders, skin infections including leprosy and iron deficiency anaemias mostly in women and children are the major diseases reported (Fig. 1). The exposure of hepatitis infection was also reported from

Andaman and Nicobar Islands: 18.5%, 48.5% and 48% for the *Great Andamanese*, the *Onges* and the *Jarawas* respectively, while all the tested *Shompens* show positive result. The virus is endemic in nature, having harmful effect, which is very less in comparison to other population (Murhekar 2006).

The main concern is hereditary haematological disorders, though sizeable data is lacking but the available information is indicating a way towards much alarming situation. The incidence of sickle cell haemoglobin (carrier) is found to even more than 30% among the *Irular* and *Paniyan*, and more than 22% among the *Baigas*. Similarly G-6-PD deficiency is observed among the *Kutia Khond* up to 15%. The frequency of thalassaemia gene is found up to 7 per cent among the *Lodha*. Since, most of the PVTGs practiced endogamy, i.e., marriage within the same community, it may have much more effect (Fig. 2).

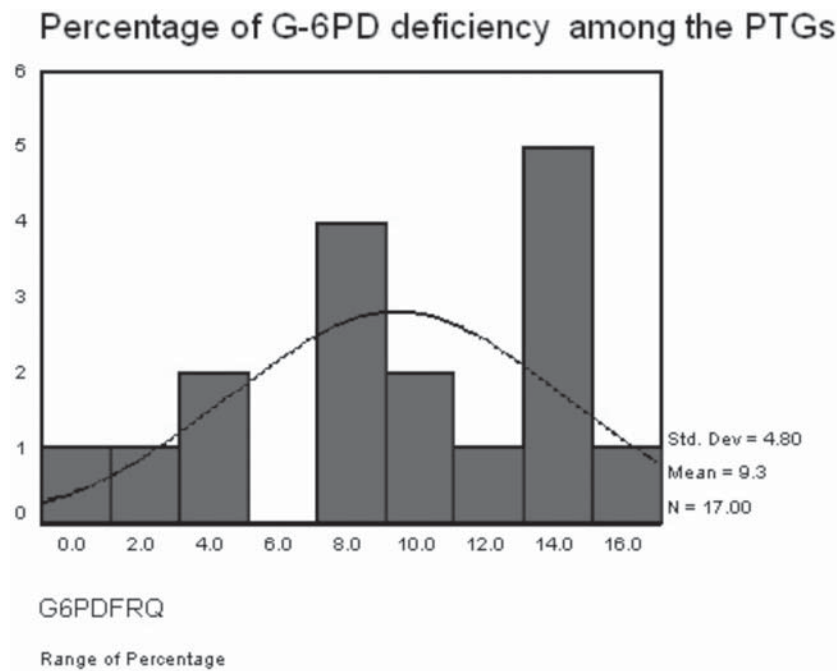
There is a methodological debate for assessing malnutrition through haemoglobin and nutritional anthropometry particularly among the children but Chhotray (2003-04) showed that the particularly vulnerable tribal groups are in critical situation like the *Bondo*, *Didayi*, *Juang* and *Kutia Khonds* of Odisha in 16%, 19%, 25.1% and 26.6% population respectively based on Gomez's classification of malnutrition. The frequency of malnourishment varies and it is 66% among the population of 6-15 years age -group in Mayurbhanj and Sundargarh

Figure 2



district while it is 89.4% and 88.9% among the *Langia Sauria* and *Kutia Khond* respectively in Rayagada district. The adult also correspond to the lower age-group among the communities like the *Khond*, *Gadaba*, *Porja*, *Bondo*, *Kamar*, *Kolam*, etc., who are showing very serious and critical undernourishment situation. The *Kamar* are showing lowest body mass index as well as mid-upper-arm circumference which definitely indicate that they are under the very critical situation. The hunter-gatherer groups of Andaman Islands under the care of Government agency are showing another side of the intervention, especially in nutritional aspect, showing high prevalence of overweight, though they are short statured people, but showing higher value (Sahani 2003, Rao *et al.* 2002). Recent nutritional studies show that there is reduction of severe malnourished category among the PVTGs in comparison to their past data. The majority of the *Bondo*, *Didayi*, *Khond* and *Juang* of Odisha had different grades of anaemia as an important clinical manifestation as per WHO classification. The severe anaemia (Hb<7g/dl) ranged from 0.6 to 2.3%, moderate (Hb 7-9g/dl) from 7.4 to 13.6% and mild (Hb 9-11g/dl) from 30.7 to 48.2% of population. Anaemia was more common among females than males. The study also reveals that 85% of the *Paudi Bhuyan*, 40% of the *Abhuj Maria*, 29% of the *Birhor* and 42.2% of the *Baigas* have severe anaemia. An appropriate intervention resulted in the reduction of worm infestation and improvement of anaemia status is 51.2% and 34.8% of individuals respectively (Chhotray 2003-04).

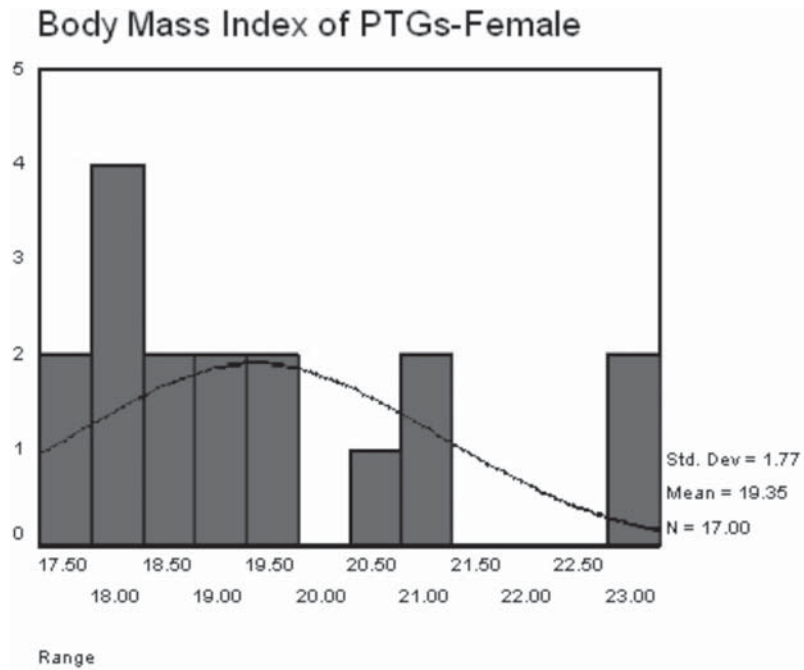
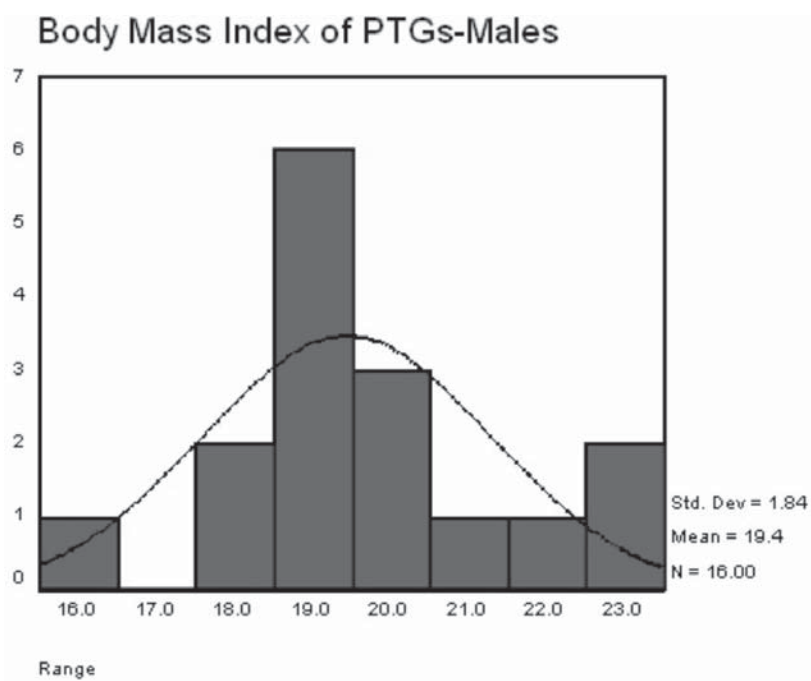
Figure 3



The immunization assessment in Tamilnadu shows that though first dosages of DPT and Polio vaccine coverage is around 99%, but 23-39% people does not get the third dose, whereas measles immunization estimates are between 15-54% and BCG immunization is 53-97%. The immunization coverage in Madhya Pradesh and Chhatisgarh tribal area is only 59.7% in ICDS covered area which is much more accessible, while non-ICDS area have only 32.9% coverage.

The high infant mortality rate, less life expectancy, high prevalence of anaemia due to worm infestation are showing that the health status are not so good among the PVTGs. The health situation prevailed among some of the PVTGs are given below for proper understanding of their health problems. For instance, Ali (1980) reported that the bronchitis, asthma, influenza, cough and cold, malaria are very common among the *Kutia Khonds* of Orissa. There are 21.36% sickle cell Haemoglobin and 16 cases of G-6-PD (from 103 tested cases) among them. But sickling has not been reported by Ali among the *Dongaria Khond*. Acute shortage of food and malnutrition along with associated diseases, Vitamin-A & B and iron-deficiency among the *Chenchus* of Andhra Pradesh have been reported. Their maternity ratio is 3.67, mean number of living children per women is 2.66 and survival ratio is 0.72 for all ages. For 40 and above ages, their maternity ratio is 5.70, mean number of living children per women is 3.81 and survival ratio is 0.67. Their mortality below one year is 11.66 and below 15 years is 26.13. Mukherjee and Nandy (1983) reported malaria, dysentery, stomach-ache, head-ache, eye-problems, bronchitis, skin diseases among the *Asurs*. Another study reported body built index among the *Padhar* of which 30.39% is bad, 25.49% is very weak and 24.51% is weak. According to pelidisi index, 16.67% is distinctly low status of nutrition, 20.59% is mild under nutrition and 42.16% is normal among the them. Regarding nutritional status of the *Hill Korwas* of Madhya Pradesh the pelidisi index indicates that all males and females have low nutritional status, whereas the pignet index shows that 0.82, 1.64, 8.03, 28.69 and 27.87, 13.11 and 9.84 per cent males are belonging to very sturdy, sturdy, good, average, weak, very weak and poor nutritional status groups, respectively (Fig. 3).

The *Khonds* of Odisha almost retain the traditional way of life and are still in the stage of subsistence economy. The different types of foods consumed by the *Khondhs* are much less than the ICMR standards. The average intake of calories of an adult *Khond* is 2084 which is also less than the ICMR standards. The average adult consumption unit is 4.7 per family. Both weight-for-height and weight-for-age measurements show that the *Khonds* are underweight and are in the state of undernutrition. The weight-for-height show 4.76% males and 9.30% female are beyond 20% weight-for-height, while 9.33% female and 37.02% male have weight-for-height between 10-20% (Fig. 4 & 5). The weight-for-age status depicts that 2.38% males are beyond 20% of the reference and 5.95% between 10-15%, while

**Figure 4****Figure 5**



females are showing 10.47% frequencies beyond 20% and 38.47% are between 10-20% for weight-for-age status (Bulliya *et al.* 2000-01).

Kumar and Dolla (2002-04) attempted to assess the impact of ICDS on health and nutritional status of pre-school children. The pre-school children from ICDS and non-ICDS villages of Kundam block in Jabbalpur district were studied. The total number of children covered from ICDS and non-ICDS villages were 511 and 617 respectively. Clinical examination was carried out to detect various morbidities. Height, weight and mid-arm circumference were measured. The mean height of children was  $83.7 \pm 15.8$  cm in ICDS villages and  $80.3 \pm 14.7$  cm in non-ICDS villages. The mean weight of children in ICDS and non-ICDS villages was  $10.4 \pm 3.4$  kg. and  $9.4 \pm 3.3$  kg. respectively. Severe undernutrition (Grade-III as per Gomez's classification) was high in non ICDS villages (17%) as compared to ICDS villages (8.4%). It was observed that immunization coverage among the ICDS villages (59.7%) was significantly higher than non-ICDS villages (32.9%).

Pande and Kumar (2004-2005) tried to assess the prevalence of goitre in Baiga taking into consideration the prevalence of iodine deficiency, School children from Baigachak area were also examined for goiter and iodine deficiency. Clinically, iodine deficiency was seen in 83 individuals out of 447 individuals. Majority of the patients were in the age group of 15-44 years followed by 5-14 years. Iodine deficiency seemed to be more prevalent in females.

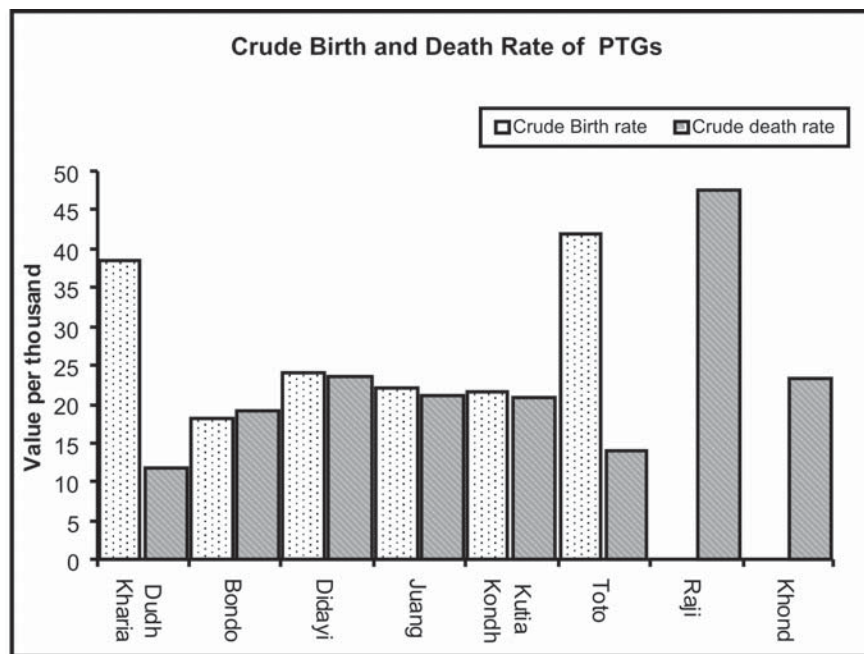
Damayanti and Chakma (2003-04) studied in an ongoing project and 40% of the sample has been covered for anthropometry, socio-economic parameters and dietary intake. The anthropometric data reveals that there are no significant differences between tribal adolescents and non-tribal adolescents with respect to height and weight. But with respect to height, girls are taller than boys up to the age of 13-14 years and then boys overtook the girls and finally, boys are 11cm to 15cm taller than girls at 17-18 years. With respect to weight also, tribal adolescent girls are heavier than boys up to the age of 16 years and then boys overtook the girls in the 17-18 year age group and finally boys are 5-10 kg heavier than girls. The anaemia is the major problem followed by goiter. This observation is based on the clinical signs. There is no difference in the prevalence of nutritional deficiency signs between tribal and non-tribals.

It is also reported that the *Kutia Khond* women are 3-4 cm. shorter in height, whereas the body weight deficit is 13.8-14.4 kg (35.3-39 kg.) than the respective age group of males in Phulbani district (Patel 1985). The range of BMI varies between males (20.8-21.8) and females (15.8-19.8). Corresponding to ICMR height standard, the proportion of women with weight deficiency is greater i.e. 72% than men (32%). Similar observations were made in Andhra Pradesh where the *Khond* women (20-40 years) are deficient for both height (3.8%) and weight (24.01%) with a BMI of 17.7 (Kupputhail & Mallika 1993). It is also observed that mean

height and weight of the elderly *Khond* women are 144 cm and 37 kg. Iron deficiency anaemia accounted for 94% of the elderly *Khond* women (Bulliyya *et al.* 2000-01). Another interesting study was conducted on the nutritional status of the *Kamars* of Madhya Pradesh (Gangopadhyay 2006) which revealed that the consumption of all the nutrients except vitamin-B<sub>1</sub> is lower than the ICMR recommendation. She mentioned that only 25% of households consume more than 2501 kilo-calorie (ICMR 2875 Kilo calorie). The *Kamar* families in general consume lesser amount of calories than actually required. The mean BMI of both the sexes revealed, “mildly undernourished” nutritional status among the studied *Kamar* population.

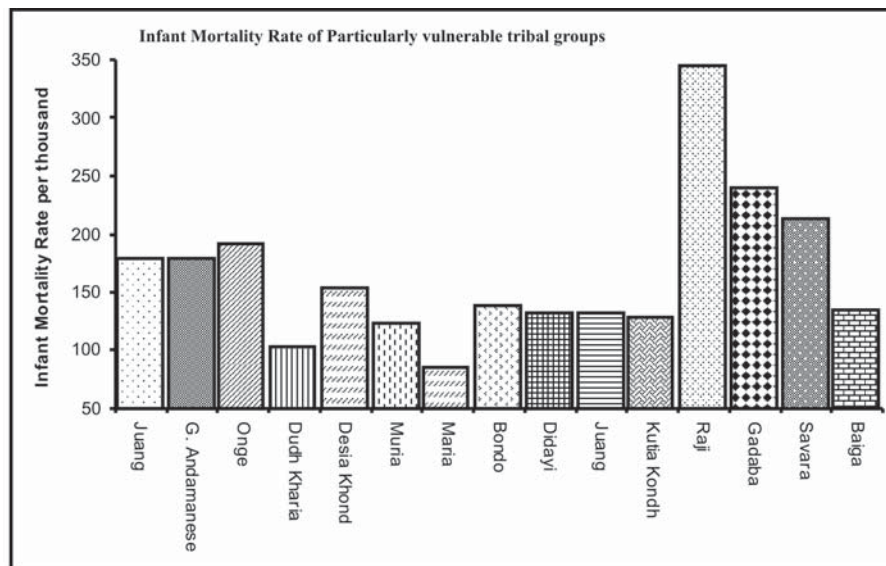
A survey of 227 families of the *Santals* and 494 families of the *Paharias* was carried out to evaluate the consequences of genetic load in terms of foetal and infant deaths. Significantly higher percentage of foetal loss was observed among the *Pahariyas* (22.5%) in comparison to the *Santals* (16.5%). This loss was recorded highest during 5-19 weeks of pregnancies in both the tribes. Maximum foetal loss occurred during 0 to 7 days and 8 to 27 days. Among the demographic factors, only age of the mothers had profound effects in foetal and infant deaths. During postnatal period, the infant deaths may be due to various problems including weaning of the body with inadequate and improper supplementation of food. The baby is exposed freely to the outside world. The sudden exposure subjects the baby to the risk of contact with unhealthy person and environment (Choudhary & Adhikari 1997).

Figure 6



Chetlapalli *et al.* (1991) estimated that the average life expectancy at birth based on q5 values of *Kutias* of Tumudibandha of Phulbani district, for male it is 46.49 years and for females it is 41.49 years respectively. The main cause of sex-wise differential rate of mortality is ascribed to physiological stress and biological factors. The sex ratio (females per thousand males) of tribal people of Odisha was 1012 (1981) and 1002 (1991) that reflects females are not neglected in these tribal society. Sex ratio at birth continues to be high among the *Khonds*. However, the *Kutia Khonds* show a low sex ratio of 920 due to preponderance of female death (Basu 1992). Very few studies are available on fertility and mortality (Fig. 6) aspects of the *Khonds*. The total fertility rate estimated as 5.0 for the woman in the age-group of 45-49 (Basu & Jindal 1990). Average pregnancy per mother and infant mortality rate is reported as 4.07 and 153.11 respectively in the *Desia Khond* (Khan 1993). The mean age at menarche among the *Kutia Khonds* of Phulbani district is found to be 14.5 years and pregnancy per mother is 5.09 and 3.89 respectively among the completed and incompleting reproductive cycle of mothers (Basu 1993). A large number of infant die during the first year of life (Fig. 7). The incidence is reported to be very high among the *Kutia Khond* i.e., 175 of Phulbani district (Basu and Jindal 1990). The infant mortality rate among the *Dongaria Khond* is 153.1 (Khan 1993) and among the *Desia Khond* it is 151.3 (Chetlapalli 1993). The causative factors may be many like female illiteracy, early marriages, low birth weight, malnutrition, asphyxias, dysentery, diarrhoea, etc. Early marriage and repeated pregnancy aggravated the risk of miscarriages, foetal deformities, low birth weight, etc. High mortality in this population group represents low level of

Figure 7



socio-economic condition. Patra and Kapoor (2006) in a study with special reference to the Raji's have highlighted that the neonatal mortality as 137.9 which is very high in comparison to the reported population groups from different parts of India. The postnatal mortality is reported to be 206.9, which is also very high in comparison to other population groups.

### CAUSAL FACTORS AND THE REMEDIES SUGGESTED

The above discussion has portrayed the health situation of the PVTGs which is not very good. The gradual improvement is also seen in the affairs of development and now PVTGs are getting confidence in the developmental agencies and coming forward to take the necessary help also. The reason of the slow progress may be multifactorial but it seems that the real problem of the PVTGs was not much identified. Since they have very emotional attachment with their habitat and any disturbance in the habitat will make serious problem than the remedy. Now, even the Government feels the fact which is manifested in the case of *Cholanayakan* "As the Cholanayakan have deep attachment with their *chemmam*, it would be difficult to rehabilitate them after evicting from their area of habitats" (Scheduled Tribe Dept. Govt. of Kerala). So, for any development planning among the PVTGs, this point may be at the center of discussion. Which are the areas they are residing better to keep intact as well as enriching the resource depleted habitat by the original flora and fauna as much as possible. Most of the PVTGs feel isolated in new rehabilitated areas and it was the main reason for their slow progress. The attitude of the ground level workers who are implementing the plan in most of the cases are not so satisfactory, the relation become like lord and subject, so sensitization of the officials are highly essential. Lot of reports is also showing that fund allocation and disbursement are not done timely as well as the beneficiaries are not even aware, so participation is not so much encouraging. The planning for their betterment also be in the line of making people self-reliant rather than dependent, because it is very very difficult to keep the pace of development in community without their active participation. The previous experiences with the developmental plans are showing the dependent attitude of the group. The first and foremost priority should be in the health and nutrition sectors with proper planning; and the planner must have advocate knowledge regarding the community and should have a lot of research exposure of the traditional society.

Since the nutritional intervention of the globe shows that when reducing undernutrition by intervention, exact proportion of the over-nutrition emerging out (WHO 1995), which has more disastrous effect than the under nutrition. The example of *Great Andamanese* and the *Onges* of the Andaman Islands are more than enough. The immunization programme particularly needs to strengthen and it really needs much focus and especially dedicated health workers are required for

the same. There should be less intervention and negative outside contact and minimizing the intoxicating substances in the areas where they were living. The study shows that more than 30% of income was spent on intoxicant among the *Great Andamanese* while *Chenchus* were habituated to liquor and causing much health and other social problem.

### CONCLUDING REMARKS

Whichever the group is enlisted as PVTGs, all may be included irrespective of their state boundaries. It will also be better if a common development agency will take care of them in case of inter-state distribution of the group, since the preference as well as working pattern are different in different states. The core area of their habitat also given priority for development and in this manner their migration to other areas will be minimized which will be beneficial impact for them. It is also felt that the critical time-bound evaluation and monitoring are essential for the economic upliftment of the PVTGs. The proper utilization of the development strategies by the community people according to the needs and requirements should be there; otherwise, their actual situation will remain same as before or even become grimmer. There should be bottom up approaches in terms of the specific PVTG rather than existing top down approaches for their development. The execution of programmes from paper to people also needs to be done quickly.

Many important issues have emerged from the above discussion regarding health status and socio-economic condition of various PVTGs of India; wherein the intervention in terms of their overall development is still needed in accordance with their existing biological and cultural scenario in general. But, specific problems should be taken care for specific strategies of the development programmes.

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